Problem I: Problems of History

The little boy on the short ladder is showing his friend a curious arrangement he made with the tomes on the shelves, that can be read as a fraction equal to $1 \div 2$. What other fractions less than 1 can you produce by using the nine books depicted in the figure?

The volumes of Hume's History of England

You are given an arbitrary positive rational number $p \div q < 1$. Find two positive integers **r** and **s** such that the concatenation of r and s produces a permutation of the digits $1 \ldots 9$, $p \div q = r \div s$, and r is as small as possible.

Input

Input starts with a positive integer **T**, that denotes the number of test cases.

Each test case contains two integers **p** and **q** in the following format: `p/q`.

$T \leq 10000$; $1 \leq p < q \leq 10^9$

Output

For each test case, print the case number, and then print the two numbers r and s chosen according to the rules explained above. If there is no such pair of numbers, print **impossible**.

Sample Input	Output for Sample Input
3 1/2 1/10 105/616364	Case 1: 6729 13458 Case 2: impossible Case 3: 135 792468